Integrating Self-Management Strategies into Dental Training

Man Wai Ng, DDS, MPH

Meeting of the Advisory Committee n Training in Primary Care Medicine and Dentistry (ACTPCMD), HRSA

June 29, 2016

10:30-12:00

Boston Children's Hospital

Until every child is well™

Objectives

- Discuss
  - What does it mean to integrate behavioral health content into primary care medicine and dentistry training programs?
  - What are some best practices that demonstrate the integration of behavioral health content into primary care medicine and dentistry education and training programs?
  - What are some challenges and barriers?
  - How can the challenges and barriers be addressed?

Disclosures

I will be presenting work and results that have received grant funding support from:

DentaQuest Institute

DentaQuest Foundation

Health Resources Services Administration

Early Childhood Caries

But aren't they just baby teeth?

Struggles of Hospital-based Dental Clinics/Training Programs

- We care for a large number of children with ECC
- Many of these children are treated surgically
- High rate of decay after treatment
- Long wait-time for operating room care
- High cost of operating room treatment
- **Caries is a highly preventable disease**

Historically…

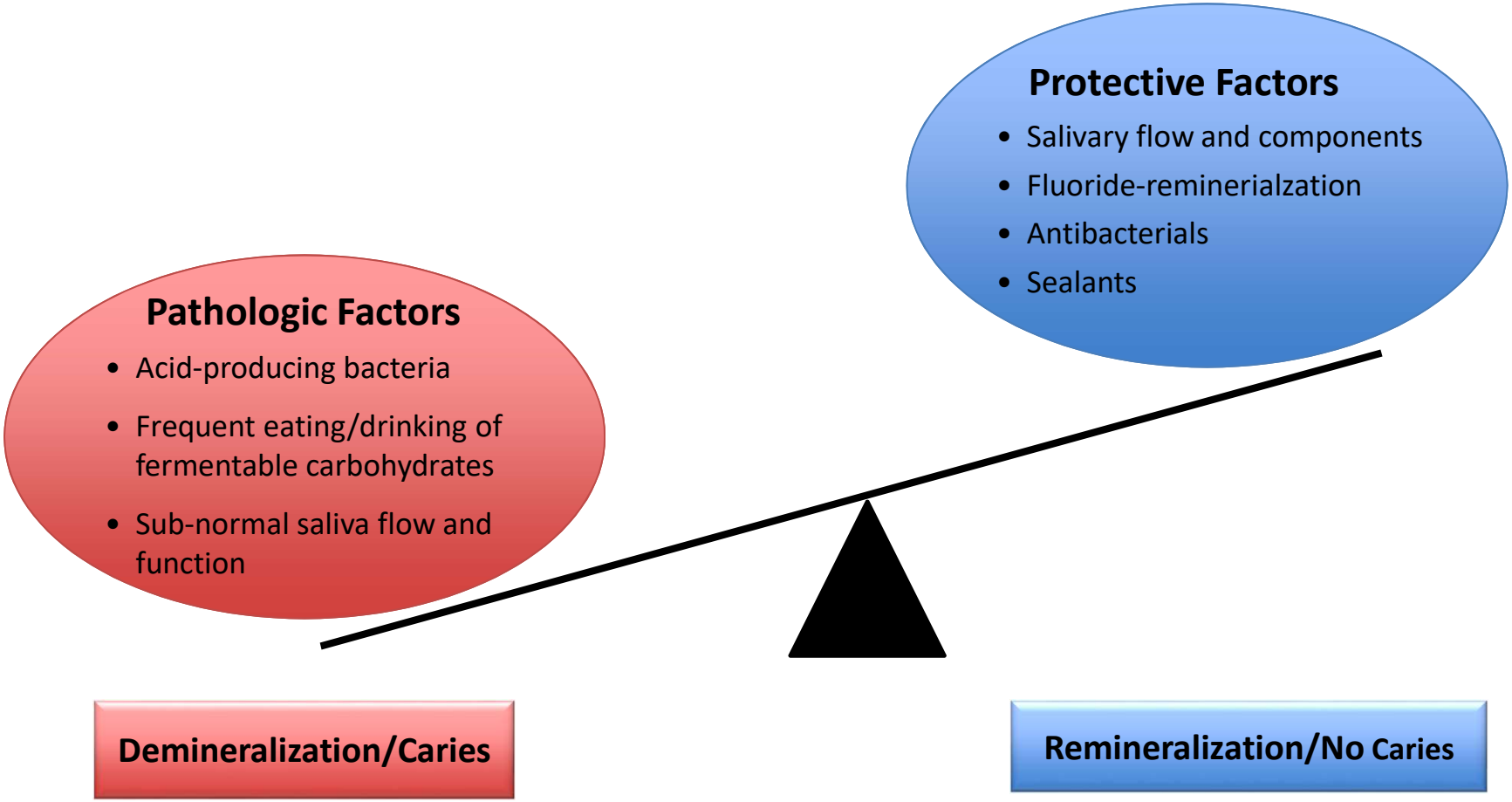
Dentistry, with its surgical tradition, commonly approaches dental caries…

as an acute **surgical** problem requiring restoration and repair

rather than

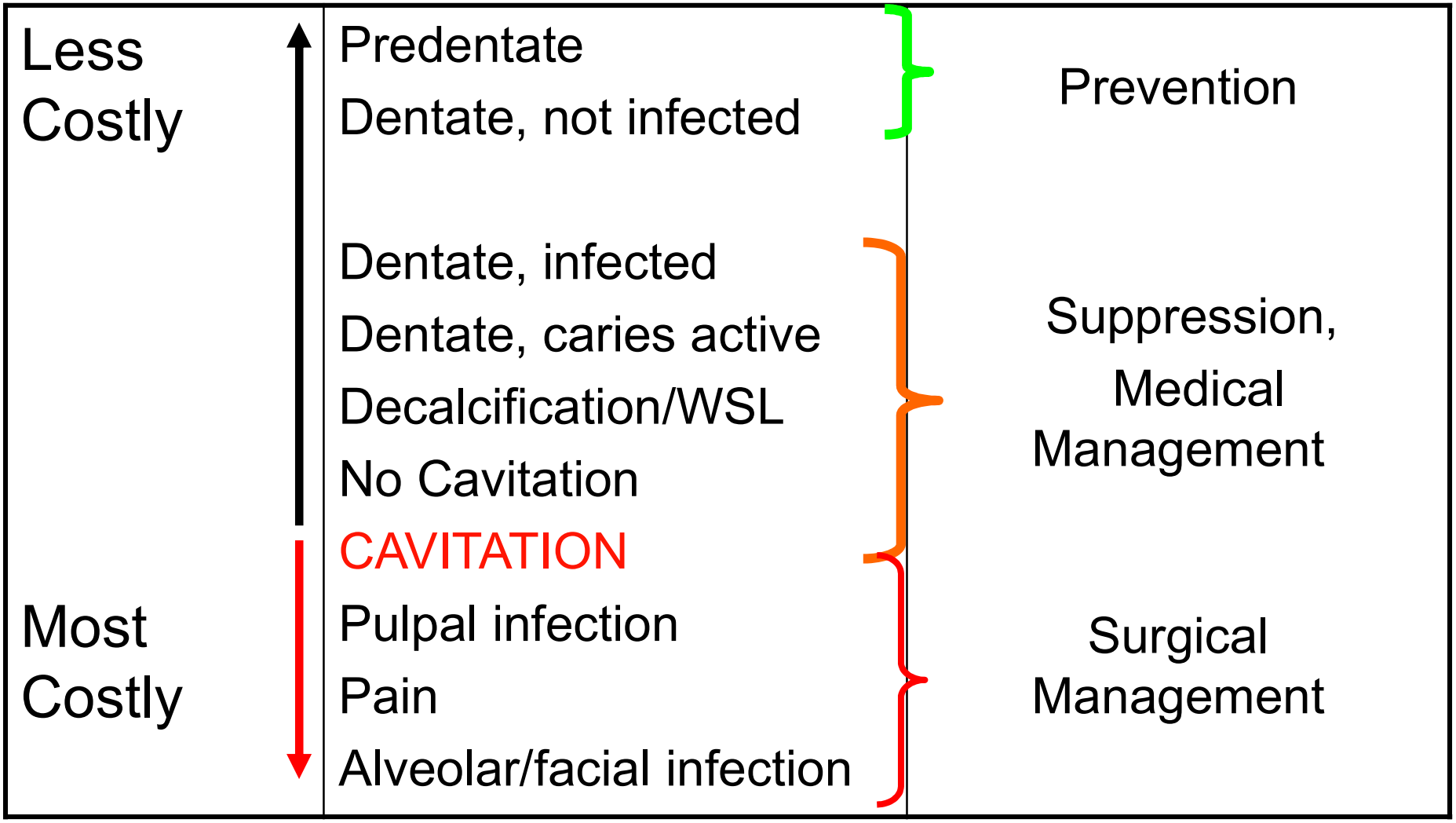
as a chronic **medical** disease process requiring individually-tailored management of etiologic factors, Chronic Disease Management ("CDM").

The Caries Balance

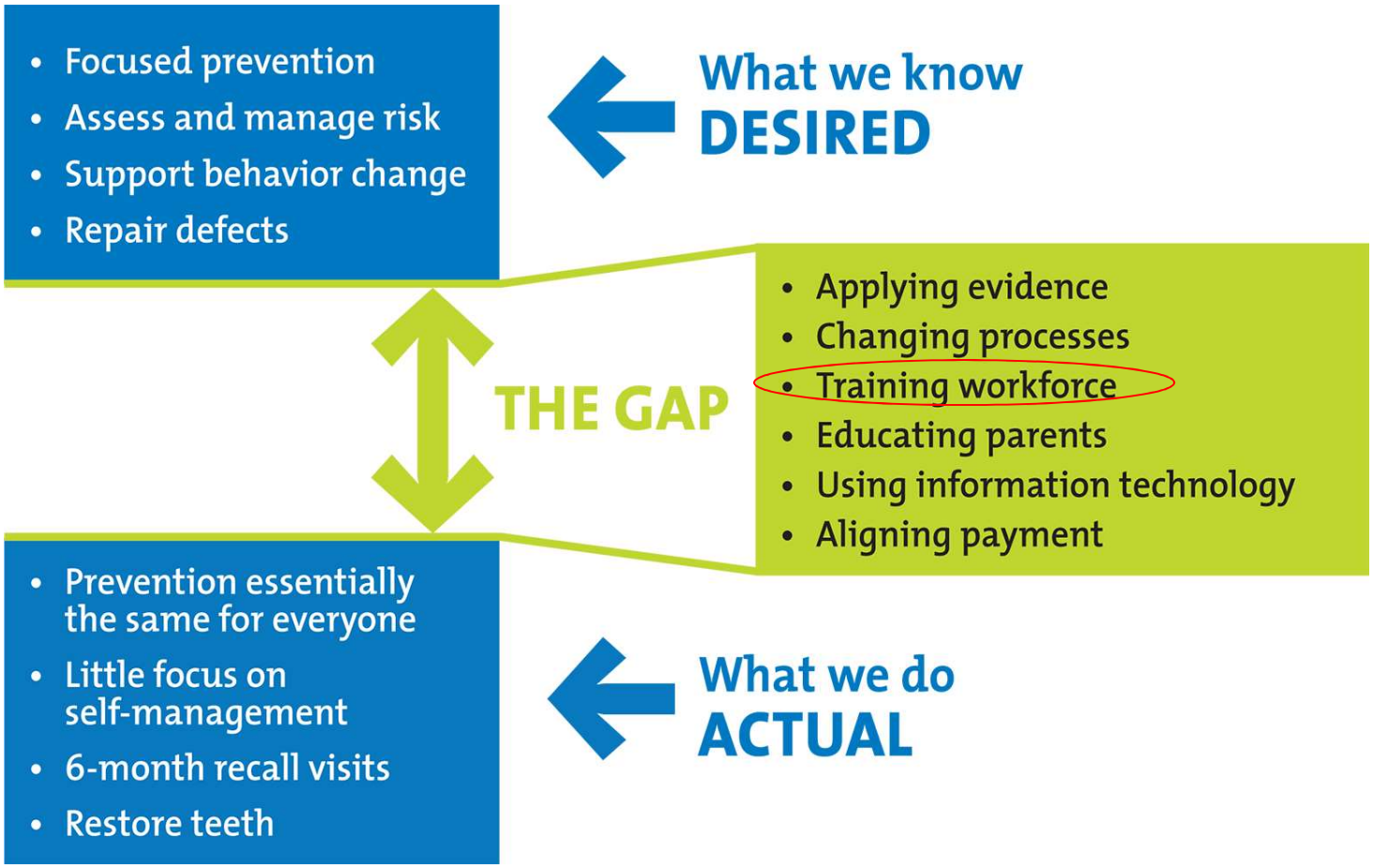


Adapted from Featherstone JDB. Caries prevention and renewal based on the caries balance. *Pediatr Dent* 2006; 28:129.

Why "Chronic Disease Management" is needed



Opportunity for Improvement



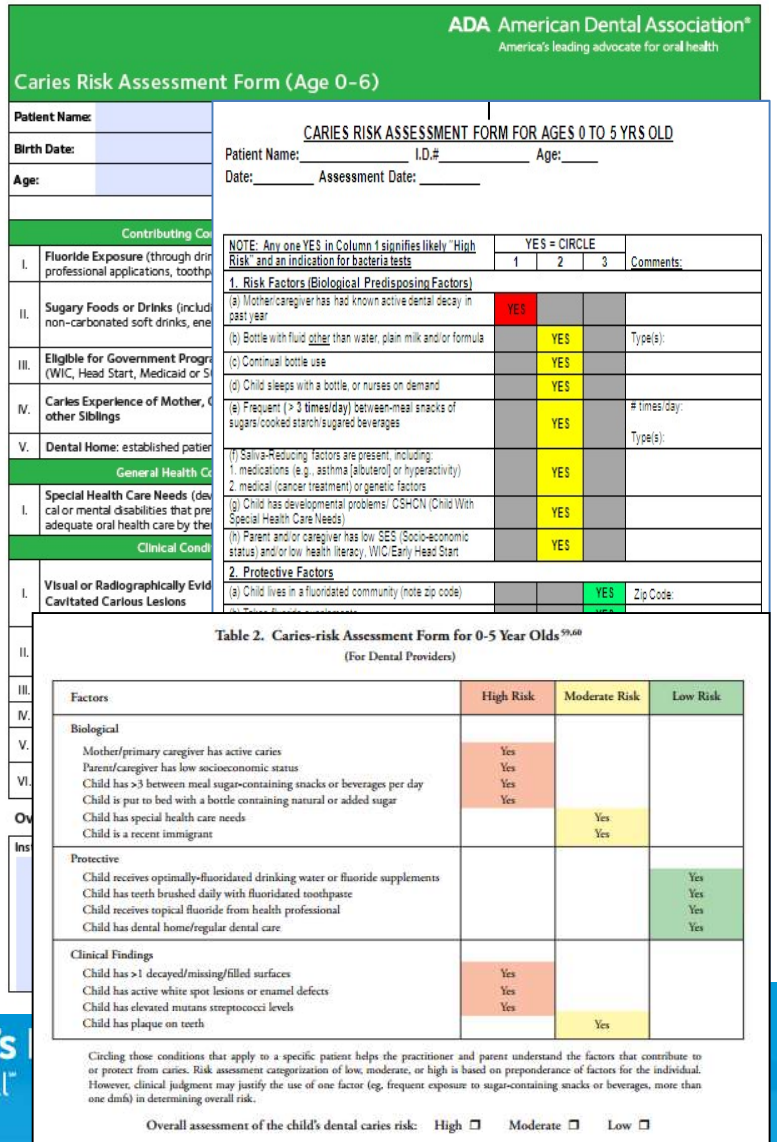
ECC Collaborative Clinical Protocol*

Since 2008, over 4 phases, >40 teams nationally have been engaged in testing changes, collecting data, and working with nationally recognized clinical and quality improvement experts to implement the practices and protocols of ECC chronic disease management

*Funded by DentaQuest Institute

Caries Risk Assessment

- Should be performed in full or abbreviated at each visit
- Have a dialogue with the parent and patient about their habits and routine, in order to identify protective factors and risk factors
- Use this information to create an individualized treatment plan with self-management goals for the patient and his/her family
- Revisit specific risk factors and protective factors at subsequent visits



ADA American Dental Association®
America's leading advocate for oral health

Caries Risk Assessment Form (Age 0-6)

Patient Name:
Birth Date:
Age:

CARIES RISK ASSESSMENT FORM FOR AGES 0 TO 5 YRS OLD

Patient Name:_____ I.D.#_____ Age:____
Date:_____ Assessment Date: _____

NOTE: Any one YES in Column 1 signifies likely "High Risk" and an indication for bacteria tests	YES = CIRCLE 1	2	3	Comments:
1. Risk Factors (Biological Predisposing Factors)				
(a) Mother/caregiver has had known active dental decay in past year	YES			
(b) Bottle with fluid other than water, plain milk and/or formula		YES		Type(s):
(c) Continual bottle use		YES		
(d) Child sleeps with a bottle, or nurses on demand		YES		
(e) Frequent (> 3 times/day) between-meal snacks of sugars/cooked starch/sugared beverages		YES		# times/day: Type(s):
(f) Saliva-Reducing factors are present, including: 1. medications (e.g., asthma [albuterol] or hyperactivity) 2. medical (cancer treatment) or genetic factors		YES		
(g) Child has developmental problems/ CSHCN (Child With Special Health Care Needs)		YES		
(h) Parent and/or caregiver has low SES (Socio-economic status) and/or low health literacy, WIC/Early Head Start		YES		
2. Protective Factors				
(a) Child lives in a fluoridated community (note zip code)			YES	Zip Code:

Table 2. Caries-risk Assessment Form for 0-5 Year Olds[59,60]
(For Dental Providers)

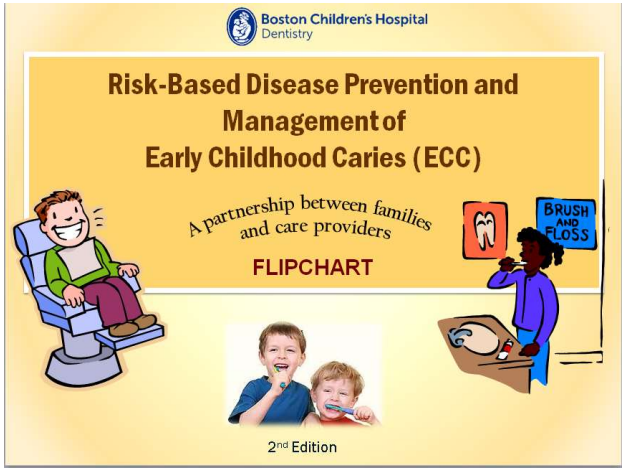
Factors	High Risk	Moderate Risk	Low Risk
Biological			
Mother/primary caregiver has active caries	Yes		
Parent/caregiver has low socioeconomic status	Yes		
Child has >3 between meal sugar-containing snacks or beverages per day	Yes		
Child is put to bed with a bottle containing natural or added sugar	Yes		
Child has special health care needs		Yes	
Child is a recent immigrant		Yes	
Protective			
Child receives optimally-fluoridated drinking water or fluoride supplements			Yes
Child has teeth brushed daily with fluoridated toothpaste			Yes
Child receives topical fluoride from health professional			Yes
Child has dental home/regular dental care			Yes
Clinical Findings			
Child has >1 decayed/missing/filled surfaces	Yes		
Child has active white spot lesions or enamel defects	Yes		
Child has elevated mutans streptococci levels	Yes		
Child has plaque on teeth		Yes	

Circling those conditions that apply to a specific patient helps the practitioner and parent understand the factors that contribute to or protect from caries. Risk assessment categorization of low, moderate, or high is based on preponderance of factors for the individual. However, clinical judgment may justify the use of one factor (eg, frequent exposure to sugar-containing snacks or beverages, more than one dmfs) in determining overall risk.

Overall assessment of the child's dental caries risk: High ❒ Moderate ❒ Low ❒

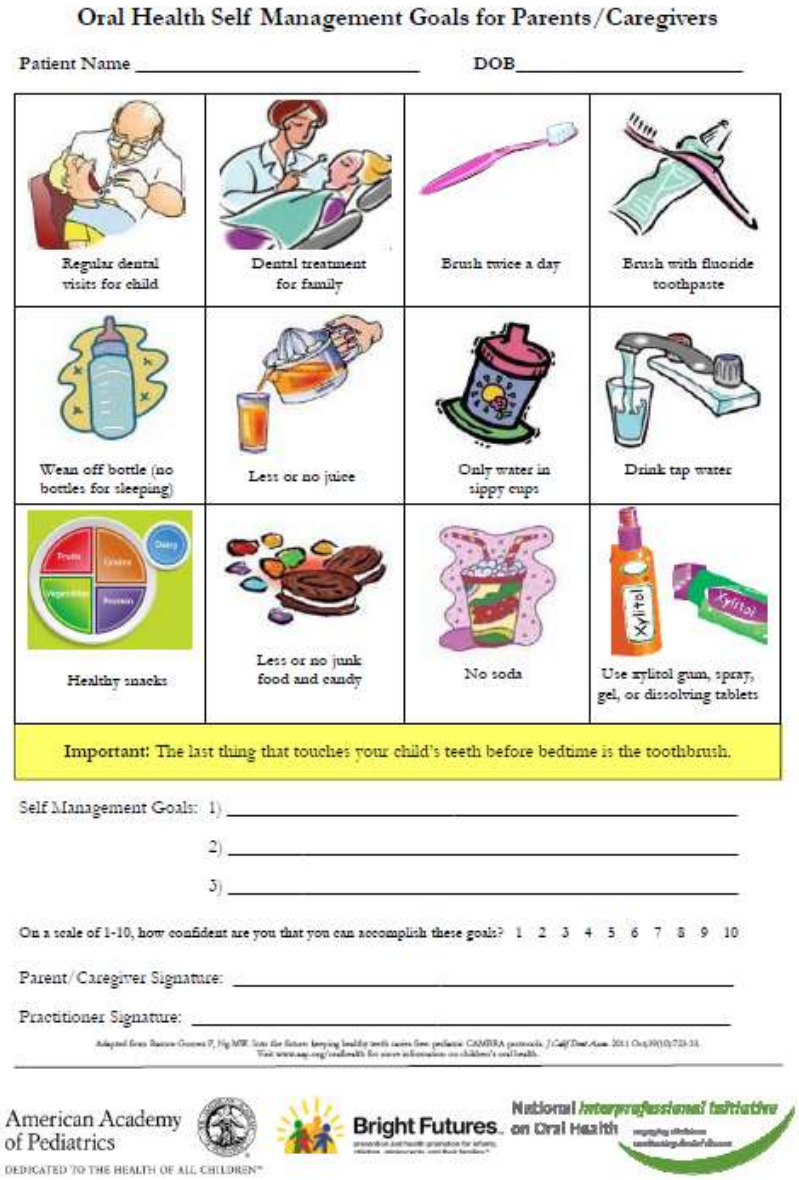
Effective Communication

- Engage the patient/parent in a dialogue
  - Obtain permission to
    - Ask questions for the CRA
    - Provide coaching on risk/protective factors
  - Ask: What matters to you? Or What is most important to you?
    - Pain, infection, cavities getting worse, appearance, cannot keep coming back…
- Use structured communication strategies such as
  - *Fixing the cavities does not fix the problem*
  - *Without a change in diet and home care, new cavities and broken fillings will result*
  - *Change is hard and won't happen over night*
- Handouts and flipcharts are helpful



Self-management Goal Setting

- Provide coaching to have the parent/patient to select no more than 1 or 2 goals to work on until the next visit



Oral Health Self Management Goals for Parents/Caregivers

Patient Name _____ DOB _____

Regular dental visits for child	Dental treatment for family	Brush twice a day	Brush with fluoride toothpaste
Wean off bottle (no bottles for sleeping)	Less or no juice	Only water in sippy cups	Drink tap water
Healthy snacks	Less or no junk food and candy	No soda	Use xylitol gum, spray, gel, or dissolving tablets

Important: The last thing that touches your child's teeth before bedtime is the toothbrush.

Self Management Goals: 1) _____

2) _____

3) _____

On a scale of 1-10, how confident are you that you can accomplish these goals? 1 2 3 4 5 6 7 8 9 10

Parent/Caregiver Signature: _____

Practitioner Signature: _____

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Bright Futures

National Interprofessional Initiative on Oral Health

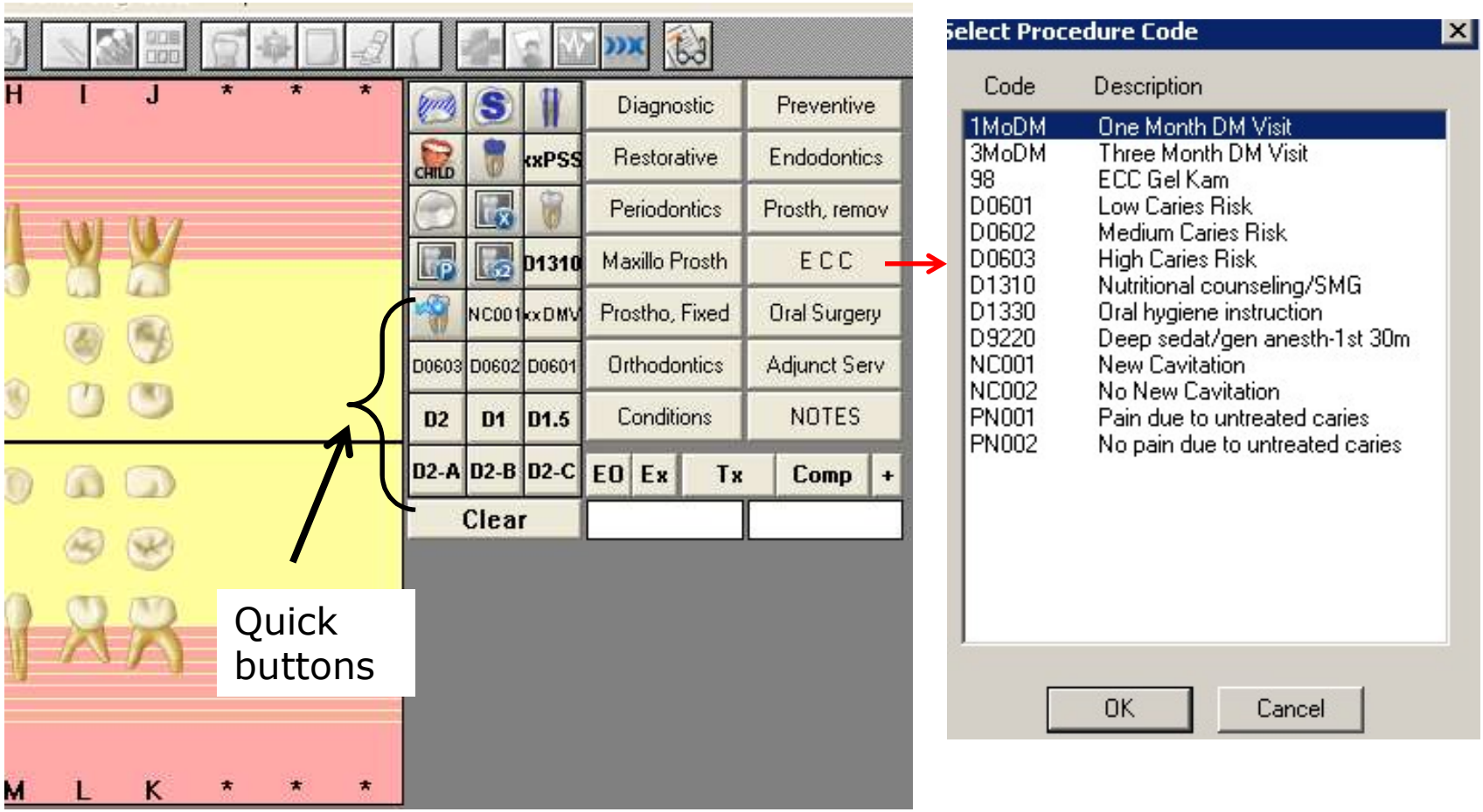
Risk-Based Recare Intervals

- Patients are recommended to return in:
  - 1-3 months (if high risk)
  - 3-6 months (if moderate risk)
  - 6-12 months (if low risk)
- At the recare/disease management visit
  - Caries risk assessment
  - Self-management goal setting
  - Exam and charting
  - X-rays if indicated
  - Fluoride varnish
- Whenever possible, coordinate CDM activities with restorative tx

Quality Improvement

- A formal approach of analyzing what we currently do in practice
- It is the testing, implementation, and adoption of *new changes and ideas* that lead to <u>measurable improvements</u> in health outcomes

Using Technology



Dentrix Chart - (SYSTEMTEST, SYSTEMTEST) [CHB] [MNG] [4496105]

File Options View Clinical Notes Prim/Perm Procedures Multi-Codes Dental Diagnostics Help

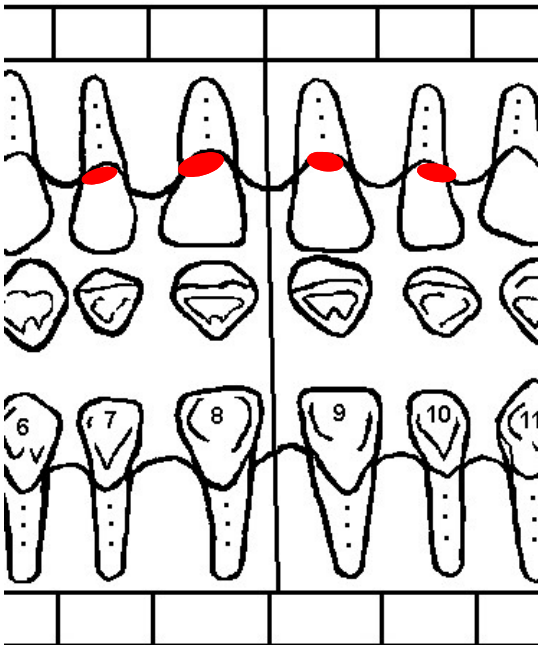
* * * A B C D E F G H I J * * *

* * * T S R Q P O N M L K * * *

						Diagnostic	Preventive	
CHILD		xxPSS				Restorative	Endodontics	
						Periodontics	Prosth, remov	
		D1310				Maxillo Prosth	E C C	
	NC001	xxDMV				Prostho, Fixed	Oral Surgery	
D0603	D0602	D0601				Orthodontics	Adjunct Serv	
D2	D1	D1.5				Conditions	NOTES	
D2-A	D2-B	D2-C	EO	Ex	Tx	Comp	+	
Clear								

Date	Tooth	Surf	Proc	Prov	Description	Stat	AP	Amount
04/11/2014			D1310	MNG	Nutritional counseling/SMG	C		0.
04/11/2014			DC001	MNG	Discharged	C		0.
04/11/2014			D1330	MNG	Oral hygiene instruction	C		15.
04/11/2014			D1206	MNG	Topical Applic Fluoride Varnis	C		42.
04/11/2014			D0603	MNG	High Caries Risk	C		0.
04/11/2014			1MoDM	MNG	One Month DM Visit	TP		0.
04/11/2014			D1330	MNG	Oral hygiene instruction	TP		15.
04/11/2014			D1206	MNG	Topical Applic Fluoride Varnis	TP		42.
04/11/2014			NC001	MNG	New Cavitation	C		0.
04/13/2014	D	F	D1	MNG	Demineralized enamel (white sp	CON		
04/13/2014	E	F	D1	MNG	Demineralized enamel (white sp	CON		
04/13/2014	F	F	D1	MNG	Demineralized enamel (white sp	CON		
04/13/2014	G	F	D1.5	MNG	Incipient Caries	CON		
06/11/2014			B000	MNG	CARIES RISK ASSESSMENT(0-5 yrs	CON		

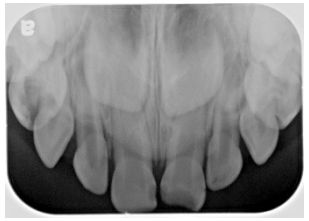
- [x] Treat Plan
- [x] Completed
- [ ] Existing
- [x] Conditions
- [ ] Exams
- [x] Proc. Notes
- [ ] Clinic Notes



Telling Success Stories

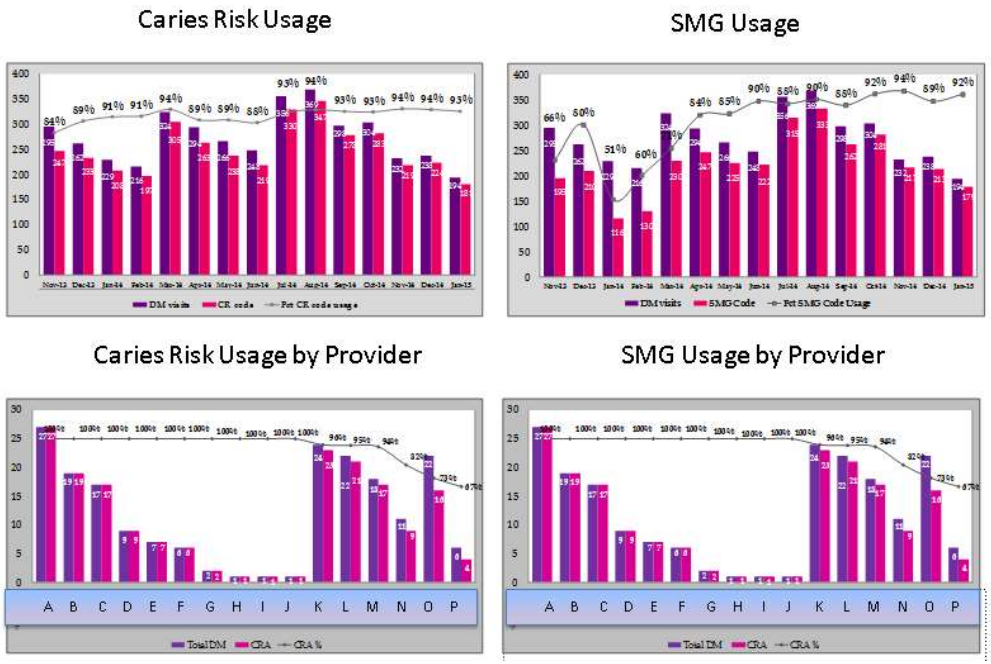
Lila

- At age 2, local dentist recommended dental treatment in OR
- Mom sought second opinion
- Mom agreed to CDM protocol & FV and DM visits q3 mos
- At age 3-4, allowed sealants, fillings & crown in clinic
- Continues to be Low Risk



Using Data in Clinical Practice

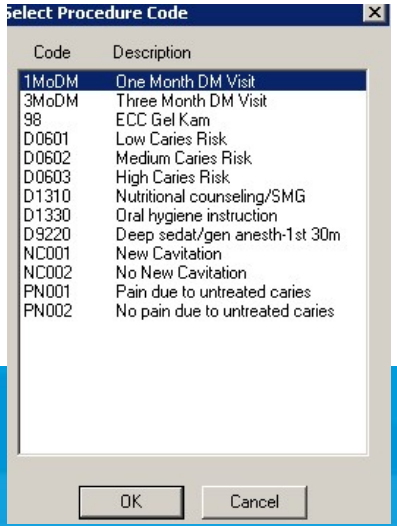
- Evaluate practice patterns and practice consistency among care providers
  - Audits
- Evaluate the oral health status of patient population
- Analyze reports in order to
  - Recare patients for CDM visits based on caries-risk
    - High risk within 3 months
    - Med risk within 6 months
    - Low risk within 12 months



Barriers, Challenges and Opportunities

- Staff buy-in to change
- Time constraints
  - Added time required during patient visits
  - Added time to meet with and train staff
- Challenges with maintaining recare intervals
  - e.g., high no-show rates
- Lack of reimbursement

- Data collection
  - Setting up and using data capture system
  - Using dummy codes in the EDR
  - Reliability with use of codes
- Organizational/Administrative issues
  - EDR implementation
  - Staff or leadership turnover
  - Finding time dedicated to this work
  - Buy-in from other staff/leadership



Successes

- Participating sites facilitated spread of chronic disease management of ECC
  - Engaging and coaching patients and families to effectively self-manage their disease
- Introduced quality improvement (QI) methods to oral health professionals
  - In diverse sites
    - FQHC's
    - Hospital-based dental practices
      - Residency training programs
    - Dental Schools
    - Private practitioners
  - Plan-Do-Study-Act cycles
- During regular staff meetings
  - Discuss obstacles and barriers
  - Celebrate successes
  - Share clinical success stories
- Gained knowledge about collecting population health data electronically through electronic dental record systems

Conclusions

- Early results from CDM interventions have demonstrated that CDM approaches and behavioral health content
  - can be implemented into clinical practice
  - can be incorporated into student/resident education/training
- QI methods have been helpful in facilitating use of risk-based CDM approaches
- Measurement is necessary to improve quality of care and outcomes
- CDM will require and benefit from evolving healthcare delivery and financing systems
- Training programs are excellent sites to test innovative care approaches and to accelerate spread

Opportunity for Improvements

Thank you!

Manwai.ng@childrens.harvard.edu